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Illustrations of all the Mollusks described by Berlin Hart and Samuel Hart Wright**

By RICHARD I. JOHNSON

The Wrights, father and son, between the years 1883 and 1934 described 52 species of mollusks from the southern states of the United States, primarily from Florida. With the exception of two terrestrial species they were all Unionidae, or fresh-water mussels. The Wrights' concept of types was, naturally, less precise than that of today, but to their credit they deposited types of almost all of their species in the United States National Museum. The author has tried to find the figured or measured type whenever possible. These have been regarded as holotypes. When this was impossible the syntypes first figured or outlined by Simpson have been selected as lectotypes. In other instances, syntypes in the United States National Museum have been elevated to lectotypes, in an attempt to fulfill the Wrights' obvious original intention that the "authentic" specimens should be in that institution, and to simplify the use of the types by subsequent workers. All types have been figured, since many of the previous figures were sketches or line drawings. Some of the species are figured here for the first time. Where possible the type localities have been rendered more specific by the addition of data from the original labels or from atlases and county maps. These data will be found in brackets.

* Volume 3 starts with Number 35.

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Paratypes or paralectotypes are to be found in numerous collections since the Wrights were generous with their duplicates. The main Wright collection was purchased by Bryant Walker and is now in the Museum of Zoology, University of Michigan. The paratypes that are mentioned as being in the Museum of Comparative Zoology were obtained in large part from the Walker duplicate collection which were generously donated by the University of Michigan. There are obviously many paratypes of the Wrights' species in the Museum of Zoology, but they have not yet been added to the type collection there, understandably so since they are unmarked and it has been correctly thought that most of the holotypes were in the United States National Museum.

Dr. H. B. Baker has recently located and marked the Wright types in the Academy of Natural Sciences of Philadelphia, and these are included here.

The author has not included biographical accounts of the Wright family, since he can contribute nothing new to the interesting accounts listed below.

Johnson, C.W., 1905. Samuel Hart Wright. *Nautilus* **19**: 105-106.

Bartsch, Paul, 1944. Berlin Hart Wright. American Malacological Union, News Bulletin and Annual Report for 1943, pp. 11-15, portrait.

ACKNOWLEDGMENTS

Thanks are due to Dr. Henry Vander Schalie for allowing me free access to the collection of the Museum of Zoology. To Dr. Harald A. Rehder I am grateful for the loan of all of the types described by the Wrights in the United States National Museum, and Dr. Joseph P. E. Morrison for helping me to locate them. Dr. R. Tucker Abbott of the Academy of Natural Sciences of Philadelphia kindly made available the Wright types in his charge, but special thanks are due to Dr. H. B. Baker who recently located and marked the types, and freely allowed me to study his manuscript on the Unionid types in the Academy.

BIBLIOGRAPHY

BERLIN HART WRIGHT

- [no date] List of shells for exchange. Reprint from "Home and Science Gossip", Rockford, Illinois. Printed on a single sheet.
- 1883, A new Florida Unio. Proc. Acad. Nat. Sci. Philadelphia **35**: 58, fig.
- 1888, Check list of North American Unionidae and other fresh water bivalves. Privately printed: Portland, Oregon. pp. 8, unnumbered.
- 1888, Description of new species of Uniones from Florida. Proc. Acad. Nat. Sci. Philadelphia **40**: 113-120, 5 pls.
- 1889, A new Florida Bulimulus; The West American Scientist **4**: 8.
- 1889, Sphaerium cubense Prime in Florida. Nautilus **3**: 19.
- 1889, Comparison of Bulimulus hemphilli Wright and B. marielienus Poey. Nautilus **3**: 19.
- 1890, Critical notes on the Bulimuli of Florida. Nautilus **4**: 61-63.
- 1892, A new Florida Unio. Nautilus **5**: 124-125.
- 1893, The Unio muddle. Nautilus **6**: 113-116.
- 1893, Notes on Unio coruscus Gould. Nautilus **6**: 126-127.
- 1896, New Florida Unios. Nautilus **9**: 121-122, pl. 2.
- 1896, New American Unionidae. Nautilus **9**: 133-135, pl. 3.
- 1896, Descent and distribution of Unionidae. Nautilus **10**: 5.
- 1897, New Unios. Nautilus **11**: 40, 55, 56.
- 1897, A new plicate Unio. Nautilus **11**: 191.
- 1898, A new undulate Unio from Alabama. Nautilus **11**: 101-102.
- 1898, Description of a new Unio. Nautilus **11**: 111-112.
- 1898, New varieties of Unionidae. Nautilus **11**: 123-124.
- 1898, New Unionidae. Nautilus **12**: 5, 6.
- 1898, A new Unio. Nautilus **12**: 32-33.
- 1898, A new Unio from Texas. Nautilus **12**: 93.
- 1899, New Southern Unios. Nautilus **13**: 6-8, 22, 31, 42, 50, 69, 75, 76, 89.
- 1900, New Southern Unios. Nautilus **13**: 138.
- 1933, A new species of Florida Unio. Nautilus **47**: 17-18, pl. 1.
- 1934, New Florida pearly mussels. Nautilus **47**: 94-95, pl. 10.

1934, A new Florida pearly fresh-water mussel. *Nautilus* **48**: 28, pl. 13, figs. 5-8 in **47**.

BERLIN HART WRIGHT AND BRYANT WALKER

1902, Check list of North American Naiades. Privately printed: Detroit, Michigan, pp. 19. 8vo.

SAMUEL HART WRIGHT

1888, A new Unio. *The West American Scientist* **4**: 60, plate.

1891, Unionidae of Georgia, Alabama, South Carolina, and Louisiana in South Florida [sic]. *Nautilus* **4**: 125.

1897, Contributions to a knowledge of United States Unionidae. *Nautilus* **10**: 136-139; **11**: 4-5.

SAMUEL HART WRIGHT AND BERLIN HART WRIGHT

1887-88, Notes on the Unionidae of South Florida. *Conchologists Exchange* **2**: 67, 95, 111, 112.

1892, On the revision of the Unionidae. *Nautilus* **6**: 80.

Recent mollusca described by B.H. and S.H. Wright with their original references and type localities

For convenience of reference the following list is arranged alphabetically by species. The plates are casually arranged by genera and approximate morphological relationship. There is no attempt to synonymize any of these forms. This will be done for the Florida species subsequently. The figures usually approximate natural size. The actual measurements of the types are given on the plate captions. If the type figured here is stated to be the holotype, the measurements are to be considered the original ones, though the latter were usually in inches rather than millimeters. All locality data in brackets have been supplied from original labels or are additions or corrections from more recent maps.

ABBREVIATIONS

ANSP — Academy of Natural Sciences of Philadelphia

MCZ — Museum of Comparative Zoology

MZUM — Museum of Zoology, University of Michigan

USNM — United States National Museum

albida B. H. Wright, **Bulimulus dormani** Plate 12, figs. 3A-C
1890, *Nautilus* **4**: 61 (no locality [near Lake Helen, Volusia Co., Florida]).

- Type not located in USNM, MZUM or MCZ. Topotype figured by Pilsbry, 1946, Land Moll. North America **2**: 23, fig. 13, d.
- armathwaitensis** B. H. Wright, **Unio gibbosus** Plate 3, fig. 1
1898, Nautilus **11**: 123 (a branch of the South Fork of the Cumberland River, Armathwaite, Fentress Co., Tennessee). Lectotype, here selected, USNM 150523; paralectotype MCZ 20167.
- averillii** B. H. Wright, **Unio** Plate 7, fig. 4
1888, Proc. Acad. Nat. Sci. Phila., p. 115, pl. 3, fig. 2 (Lake Ashby, Volusia Co., Florida). The syntype figured by Simpson 1892, Proc. United States Nat. Mus. **15**: 414, pl. 56, fig. 6 could not be located. Lectotype, here selected, USNM 91142; 3 paralectotypes MCZ 134058.
- brimleyi** S. Hart Wright, **Unio** Plate 5, fig. 1
1897, Nautilus **10**: 138 ([Walnut Creek of] Neuse River, Raleigh [Wake Co.] North Carolina). The type locality is here further restricted to Walnut Creek, from Brimley's previously unpublished notes, see: Walter, 1956, Jour. Elisha Mitchell Sci. Soc. **72**: 268. Lectotype, here selected, USNM 149651, figured by Simpson, 1900, Proc. Acad. Nat. Sci. Phila., p. 80, pl. 4, p. 6.
- bursa-pastoris** B. H. Wright, **Unio** Plate 13, fig. 1
1896, Nautilus **9**: 133, pl. 3, top and bottom figs. (Powell River [Lee Co.], Virginia). Figured holotype ANSP 67971. Idiotype USNM 133427, figured here, pl. 2, fig. 3; 3 idiotypes MCZ 133474; both labeled, "Clinch River, Lee [=Scott] Co., Virginia."
- burtchianus** S. Hart Wright, **Unio** Plate 8, fig. 4
1897, Nautilus **10**: 137 (St. Mary's River, Nassau Co., Florida). Lectotype, here selected, USNM 149653, possibly the specimen figured by Simpson, 1900, Proc. Acad. Nat. Sci. Phila., p. 80, pl. 4, fig. 8.
- buxtoni** B. H. Wright, **Unio** Plate 11, fig. 4
1897, Nautilus **11**: 55 (Lakelets of Marion Co., Florida). The type figured by Simpson, 1900, Proc. Acad. Nat. Sci. Phila., p. 80, pl. 1, fig. 6 was not the measured holotype, nor can it be ascertained which specimen in the lot it is. Lectotype, here selected, USNM 150131; 2 paralectotypes MCZ 20173.
- conjugans** B. H. Wright, **Unio** Plate 2, fig. 1
1899, Nautilus **13**: 89 Hiawassa [Hiawassee] River, Polk Co., Tennessee). Holotype USNM 159501, figured by Simpson, 1900, Proc. Acad. Nat. Sci. Phila., pl. 4, fig. 1. Known only from the holotype.
- cunninghami** B. H. Wright, **Unio** Plate 13, fig. 2
1883, Proc. Acad. Nat. Sci. Phila., p. 58, pl. 1, figs. 1-4 (Lakes of Sumter Co., Florida). The type locality is, here restricted, to Lake Harris, Yalaha, Lake Co., Florida, the home of the original collector, T. L. Cunningham. Lectotype, here selected, ANSP 41348a, specimen on which figs. 1 and 3 are based; 7 paralectotypes ANSP 41348; paralectotype USNM 152063, figured here, pl. 10, fig. 1; 3 paralectotypes MCZ 178700.
- dallii** B. H. Wright, **Unio** Plate 10, fig. 2
1888, Proc. Acad. Nat. Sci. Phila., p. 119, pl. 6, fig. 1 (Lake Beresford, Volusia Co., Florida). Figured holotype USNM 151037, labeled Lake Woodruff, which is assumed to be in error; paratypes ANSP 41342.
- danielsii** B. H. Wright, **Unio** Plate 6, fig. 1
1889, Nautilus **13**: 31 (Spring Creek [a branch of the Flint River], Decatur Co., Georgia). Measured holotype USNM 168967; paratypes ANSP 48039.

diasensis S. Hart Wright, **Unio**

1888, Check List North American Unionidae (no pagination). *Nomen nudum*.

diazensis S. Hart Wright, **Unio**

Plate 8, fig. 6

1897, Nautilus **11**: 5 (Lake Diaz, Volusia Co., Florida). Lectotype, here selected, USNM 149652; 2 paralectotypes MCZ 37314.

dispalans B. H. Wright, **Unio**

Plate 8, fig. 3

1899, Nautilus **13**: 50 (Suwannee River, Florida). Holotype USNM 159986, figured by Simpson, 1900, Proc. Acad. Nat. Sci. Phila., p. 80, pl. 1, fig. 9.

dorei B. H. Wright, **Unio**

Plate 9, fig. 2

1888, Proc. Acad. Nat. Sci. Phila., p. 115, pl. 3, fig. 1 (Lake Monroe [Volusia Co.], Florida). Holotype USNM 151034; 4 paratypes MCZ 178721; paratypes ANSP 41363.

frierioni B. H. Wright, **Unio**

Plate 5, fig. 4

1896, Nautilus **9**: 134, pl. 3 (Bayou Pierre, an arm of the Red River in De Soto Parish, Louisiana). "The type locality has been drained", teste Frier-son, 1927, Check List North American Naiades, p. 54. The figured specimen was not located. Lectotype, here selected, USNM 133432; 2 paralectotypes MCZ 165697 and 30563; paralectotypes ANSP 67972.

fryanus B. H. Wright, **Unio**

Plate 8, fig. 5

1888, Proc. Acad. Nat. Sci. Phila., p. 113, pl. 2, fig. 1 (Lake Ashby, Volusia Co., Florida). Holotype USNM 151032; 4 paratypes MCZ 37202; paratypes ANSP 41349.

harperi B. H. Wright, **Unio**

Plate 4, fig. 3

1898, Nautilus **13**: 6 (Altamaha River, Liberty Co., Georgia, 2 adults; Suwannee River, Madison Co., Florida, 3 specimens; Spring Creek, a branch of the Flint, Decatur Co., Georgia, 20 specimens). As pointed out by Clench and Turner, 1956, Bull. Florida State Mus. **1**: 164, this species does not occur in the Atlantic drainage, though the type is labeled Altamaha River. The type locality is, here restricted, to Spring Creek, Decatur Co., Georgia, where the majority of the specimens were found. Holotype USNM 159197, figured by Simpson, 1900, Proc. Acad. Nat. Sci. Phila., p. 81, pl. 1, fig. 10; 4 idiotypes MCZ 186969, from the Suwannee River.

hartii B. H. Wright, **Unio (Elliptio) webbianus**

Plate 9, fig. 5

1934, Nautilus **47**: 95, pl. 10, figs. 3-4 (Lake Consuelo, near Floral City [or Little Lake, SE of Floral City, just outside village limits], Citrus Co., Florida). Holotype USNM 424925; figured paratypes ANSP 161595a, fig. 4; 2 paratypes MCZ 95947.

hartwrightii B. H. Wright, **Unio**

Plate 7, fig. 1

1896, Nautilus **9**: 121, pl. 2, figs. 4-6 (Lake Beresford [Volusia Co.], Florida). Figured holotype USNM 151031, labeled, and here restricted to [St. Johns River], Blue Springs [3 miles S of Lake Beresford, Volusia Co.], Florida; paratype MCZ 167687; paratype ANSP 67523.

hemphilli B. H. Wright, **Bulimulus**

Plate 12, fig. 4

1889, West American Scientist **4**: 8; is fig. 449 of Binney's Manual of American Land Shells [W. G. Binney, 1885, Bull. United States Nat. Mus. **28**] (Marco, Florida, Hemphill). [Wright mentions this locality but makes it clear that his specimens were not from here, though he is vague as to where his specimens were collected.]

Pilsbry, 1946 (Land Moll. North America 2: 25) has the following note: "Mr. Berlin Hart Wright, when 89 years of age, wrote me that specimens of *hemphilli* were taken 'on the tongue of land between the ocean and Halifax (or Indian) River [Volusia Co.] on a great shell mound which has now been used for making roads. The only pair found was sent to Mr. Binney. It was on the advice of Mr. Binney that their novelty was assured. . . ' These two types are in the Museum of Comparative Zoology, with the locality given as Hawks Park, Florida. Lectotype, here selected, MCZ 13020; paralectotype MCZ 233681.

- hinkleyi** B. H. Wright, *Unio* Plate 11, fig. 1
1888, Proc. Acad. Nat. Sci. Phila., p. 117, pl. 4, fig. 2 (Lake Monroe [Volusia Co.], Florida). Holotype USNM 151033; 2 paratypes MCZ 252048, paratypes ANSP 43140.
- iheringi** B. H. Wright, *Unio* Plate 4, fig. 2
1898, Nautilus 12: 93 (San Saba River, Menard Co., Texas). Holotype USNM 152171, figured by Simpson, 1900, Proc. Acad. Nat. Sci. Phila., p. 79, pl. 4, fig. 5; 2 paratypes MCZ 20152.
- kingii** B. H. Wright, *Unio* Plate 5, fig. 6
1900, Nautilus 13: 138 (a branch of the Flint River, Baker Co., Georgia). Measured holotype USNM 159965; paratype MCZ 20156.
- kirklandianus** S. Hart Wright, *Unio* Plate 5, fig. 3
1897, Nautilus 10: 136 (Ocklocknee [Ochlockonee] River, Leon Co., Florida). Measured holotype USNM 149648, figured by Simpson, 1900, Proc. Acad. Nat. Sci. Phila., p. 76, pl. 1, fig. 7; paratypes MCZ 189802 and 186840.
- lehmanii** S. Hart Wright, *Unio* Plate 6, fig. 3
1897, Nautilus 10: 138 (St. Marys River [Nassau Co.], Florida). Lectotype, here selected, USNM 149650, figured by Simpson, 1900, Proc. Acad. Nat. Sci. Phila., p. 80, pl. 4, fig. 9; paralectotype ANSP 60451.
- leonensis** "B. H. Wright" Simpson, *Unio*
1892, Proc. United States Nat. Mus. 15: 419, pl. 62, figs. 3-4 (Lake Woodruff [Spring Garden Lake] near De Leon Springs [Volusia Co., Florida]). Listed as a synonym of *Unio jayanus* Lea.
- marshii** B. H. Wright, *Unio* Plate 12, fig. 2
1888, Proc. Acad. Nat. Sci. Phila., p. 118, pl. 5, fig. 2 (Lake Woodruff, Volusia Co., Florida). Holotype USNM 151028, from [St. Johns River] Blue Springs [3 miles S of Lake Beresford, Volusia Co., Florida], since the locality "Blue Springs" is written on the type, it is considered correct and the locality is here so restricted; 2 paratypes ANSP 42493.
- maywebbae** B. H. Wright, *Elliptio* Plate 10, fig. 3
1934, Nautilus 48: 28; 47, pl. 13, figs. 5-8 (near Seminole Springs [is Rock Springs, Orange Co.] 15 miles South East of Eustis [Lake Co.] Florida). Holotype USNM 425354; paratypes ANSP 162516.
- nolani** B. H. Wright, *Unio* Plate 10, fig. 4
1888, Proc. Acad. Nat. Sci. Phila., p. 116, pl. 4, fig. 1 (a creek flowing into St. Johns River, near Palatka [Putnam Co.], Florida). Holotype USNM 151030; paratypes ANSP 41354.
- orcuttii** S. Hart Wright, *Unio* Plate 9, fig. 1
1888, West American Scientist 4: 60, pl. 3, figs. ([Horse Creek] near Man-

atee River [Manatee Co.]; West coast of Florida; Lake Miakka, Florida). Figured holotype, USNM 308971, from [Horse Creek] near Manatee River [Manatee Co.]: the type locality is here restricted to this locality; paratypes MCZ 151035 and 252049.

- oscar** B. H. Wright, **Unio** Plate 11, fig. 3
1892, Nautilus **5**: 124 (a creek from Lake Osceola, at Winter Park [Orange Co.], Florida); 1896, Nautilus **9**: 122, pl. 2, figs. 1-3, Possible figured holotype, here selected, lectotype USNM 123526; 15 paralectotypes MCZ 178717; paralectotypes ANSP 41361.
- pinei** B. H. Wright, **Unio** Plate 10, fig. 5
1897, Nautilus **11**: 40 (unnamed lake in Witthacoochee [Withlacoochee] River, region of Hernando Co., Florida). Holotype USNM 150127, figured by Simpson, 1900, Proc. Acad. Nat. Sci. Phila., p. 80, pl. 3, fig. 1; 3 paratypes MCZ 30357 and 20153; possible paratypes ANSP 78861.
- pinkstonii** S. Hart Wright, **Unio** Plate 5, fig. 2
1897, Nautilus **10**: 136 (Tuscaloosa [Tallapoosa] River, Macon Co., Alabama). Lectotype, here selected, USNM 149649, figured by Simpson, 1900, Proc. Acad. Nat. Sci. Phila., p. 81, pl. 1, fig. 8; 2 paralectotypes MCZ 189647.
- polymorphus** B. H. Wright, **Unio** Plate 6, fig. 2
1899, Nautilus **13**: 42 (Spanish Creek, Okefenokee Swamp [a tributary of St. Marys River, W of Folkston], Charlton Co., Georgia). Lectotype, here selected, USNM 152060; 5 paralectotypes MCZ 30290.
- reclusus** B. H. Wright, **Unio** Plate 4, fig. 5
1898, Nautilus **11**: 111 Ocklocknee [Ochlockonee] River, Leon Co., Florida). Holotype USNM 151029, figured by Simpson, 1900, Proc. Acad. Nat. Sci. Phila., p. 82, pl. 1, fig. 2; 25 paratypes MCZ 197685.
- rotulatus** B. H. Wright, **Unio** Plate 4, fig. 4
1899, Nautilus **13**: 22 (Escambia River, Escambia Co., Florida). Holotype USNM 159969, figured by Simpson, 1900, Proc. Acad. Nat. Sci. Phila., p. 78, pl. 4, fig. 2. Known only from the holotype.
- sanctorumjohanium** B. H. Wright, **Unio (Elliptio)** Plate 9, fig. 3
1933, Nautilus **47**: 17, pl. 1 (Lake Druid, near Floral City [Citrus Co.], Florida). Holotype USNM 424738; paratype MCZ 81972; paratype ANSP 161016.
- simpsoni** B. H. Wright, **Unio** Plate 8, fig. 2
1888, Proc. Acad. Nat. Sci. Phila., p. 40, pl. 5, fig. 1 (Lake Woodruff, Volusia Co., Florida). Holotype USNM 151038; 4 paratypes MCZ 252047; paratypes ANSP 41346.
- singularis** B. H. Wright, **Unio** Plate 5, fig. 7
1899, Nautilus **13**: 75 (Spring Creek [a branch of the Flint River], Decatur Co., Georgia). Measured holotype USNM 159988.
- stearnsiana** 'B. H. Wright' Simpson, **Unio**
1892, Proc. United States Nat. Mus. **15**: 425 (Blue Springs Landing [3 miles S of Lake Beresford, Volusia Co.], Florida). *Nomen nudum*. Listed as a synonym of *Unio minor* Lea [= *Carunculina paula* Lea].
- stearnsi** B. H. Wright, **Unio**
1888, Check List of North American Unionidae (Portland, Oregon), p. 5. *Nomen nudum*; Simpson, 1914, Cat, Naiades **1**: 146. Listed as a synonym of *Lampsilis minor* [= *Carunculina paula* Lea].

- strigillatus** B. H. Wright, *Unio cylindricus* Plate 3, fig. 2
1898, Nautilus **12**: 6 (Clinch [Powell] River [Jonesville], Lee Co., Virginia).
Lectotype, here selected, USNM 151737, from Jonesville.
- strodeanus** B. H. Wright, *Unio* Plate 4, fig. 1
1898, Nautilus **12**: 5 (Escambia River, West Florida). The type figured by
Simpson 1900, Proc. Acad. Nat. Sci. Phila., p. 81, pl. 1, fig. 3, could not be
located. Lectotype, here selected, USNM 150498; 6 paralectotypes MCZ
210277.
- suttoni** B. H. Wright, *Unio* Plate 11, fig. 2
1897, Nautilus **11**: 56 ([Smith] Lake, near Candler, Marion Co., Florida).
Measured holotype USNM 150129; paratypes MCZ 20172.
- swordianus** S. Hart Wright, *Unio* Plate 3, fig. 3
1897, Nautilus **11**: 4 (Powell Creek [River], Lee Co., Virginia). The type
figured by Simpson 1900, Proc. Acad. Nat. Sci. Phila., p. 81, pl. 4, fig. 4 could
not be located. Lectotype, here selected, USNM 149654; paralectotypes
ANSP 48304.
- tinkeri** B. H. Wright, *Unio* Plate 1, fig. 2
1899, Nautilus **13**: 7 (Tombigbee River [Moscow, Lamar Co.], Alabama).
Holotype USNM 159193, figured by Simpson, 1900, Proc. Acad. Nat. Sci.
Phila., p. 78, pl. 4, fig. 3; 2 paratypes MCZ 20165; paratypes ANSP 48376.
- triumphans** B. H. Wright, *Unio* Plate 1, fig. 1
1898, Nautilus **11**: 101 (Coosa River, St. Clair Co., Alabama). Holotype
USNM 150554, figured by Simpson, 1900, Proc. Acad. Nat. Sci. Phila., p. 83,
pl. 3, fig. 3; 2 paratypes MCZ 139625; paratypes ANSP 48226.
- truncata** B. H. Wright, *Margaritana marginata* Plate 4, fig. 6
1898, Nautilus **11**: 124 (occurs in eastern as well as western waters and
into Virginia and Tennessee). Lectotype, here selected, USNM 150545 from
the Clinch River, Virginia; 4 idiotypes MCZ 152253, from Greyson Co.,
Virginia.
- tryoni** B. H. Wright, *Unio* Plate 12, fig. 1
1888, Proc. Acad. Nat. Sci. Phila., p. 120, pl. 6, fig. 2 (Lake Woodruff [Spring
Garden Lake], near De Leon Springs, Volusia Co., Florida). Holotype USNM
151036; 6 paratypes MCZ 252045.
- unicostatus** B. H. Wright, *Unio* Plate 7, fig. 3
1899, Nautilus **43**: 69 (Spring Creek [a branch of the Flint River], Decatur
Co., Georgia). Lectotype, here selected, USNM 159966 [in the same lot is a
male allotype, length 38 mm., height 26 mm., width 15 mm.]; paralectotype
MCZ 20150.
- villosus** B. H. Wright, *Unio* Plate 8, fig. 1
1898, Nautilus **12**: 32 (Suwannee River [Luraville], Suwannee Co., Florida).
Lectotype, here selected, USNM 150503, figured by Simpson, 1900, Proc.
Acad. Nat. Sci. Phila., p. 77, pl. 1, fig. 1; paralectotype MCZ 186836.
- walkeri** B. H. Wright, *Unio* Plate 5, fig. 5
1897, Nautilus **11**: 91 (Suwannee River [Ellaville], Madison Co., Florida).
Lectotype, here selected, USNM 150506, figured by Simpson, 1900, Proc.
Acad. Nat. Sci. Phila., p. 77, pl. 1, fig. 5; 2 paralectotypes MCZ 20178; para-
lectotypes ANSP 71661, 71662.
- waltoni** B. H. Wright, *Unio* Plate 11, fig. 5
1888, Proc. Acad. Nat. Sci. Phila., p. 114, pl. 2, fig. 3 (Lake Woodruff, Volu-

sia Co., Florida). The figured type was not located. Lectotype, here selected, USNM 91145, presumed to be the syntype outlined by Simpson, 1892, Proc. United States Nat. Mus. **15**: 431, pl. 73, fig. 7; paralectotype MCZ 167701; 2 paralectotypes ANSP 41399.

webbianus B. H. Wright, **Unio (Elliptio)** Plate 9, fig. 4
1934, Nautilus **47**: 94, pl. 10, figs. 1-2 (Lake Consuelo [or Little Lake, SE of Floral City, just outside village limits] near Floral City, Citrus Co., Florida). Holotype USNM 424923; figured paratype ANSP 161594a, fig. 2; 2 paratypes MCZ 15948.

websterii B. H. Wright, **Unio** Plate 7, fig. 2
1888, Proc. Acad. Nat. Sci. Phila., p. 113, pl. 2, fig. 2 (Lake Woodruff, Volusia Co., Florida). Lectotype, here selected, USNM 125697; paralectotype MCZ 178765; paralectotype ANSP 41341.

woodruffensis 'B. H. Wright' Simpson, **Unio**
1892, Proc. United States Nat. Mus. **15**: 419. *Nomen nudum*. Listed as a synonym of *Unio jayanus* Lea.

Plate 1

Fig. 1. *Unio triumphans* B. H. Wright. Coosa River, St. Clair Co., Alabama. Holotype USNM 150554. Length 105 mm., height 93 mm., width 42 mm.

Fig. 2. *Unio tinkeri* B. H. Wright. Tombigbee River [Moscow, Lamar Co.], Alabama. Holotype USNM 159193. Length 47 mm., height 40 mm., width 28 mm.

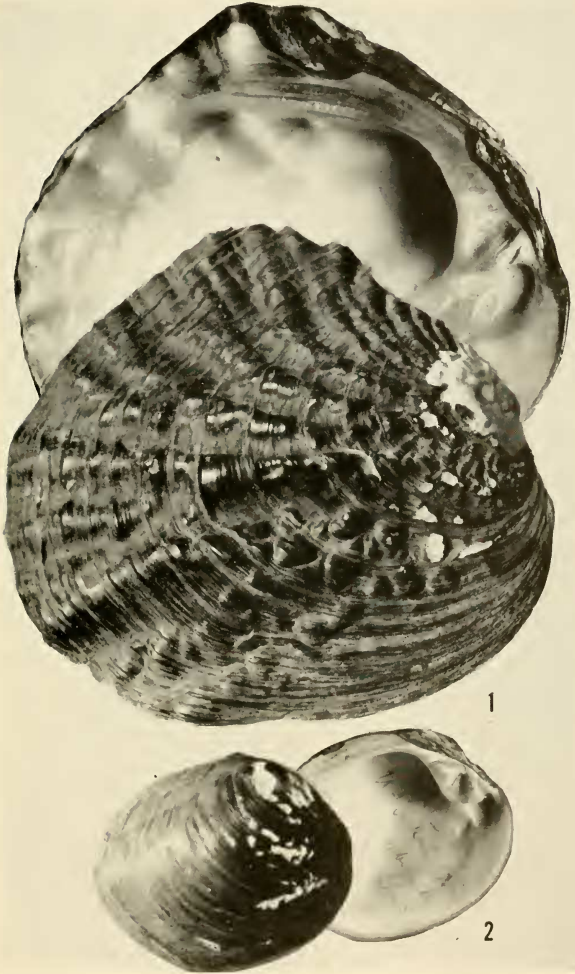


Plate 1

Plate 2

- Fig. 1. *Unio conjugans* B. H. Wright. Hiawassa [Hiawassee] River, Polk Co., Tennessee. Holotype USNM 159501. Length 97 mm., height 72 mm., width 47 mm.
- Fig. 2. *Unio bursa-pastoris* B. H. Wright. Clinch River, Lee [Scott] Co., Virginia. Idiotype USNM 133427. Length 98 mm., height 65 mm., width 38 mm.



Plate 2

Plate 3

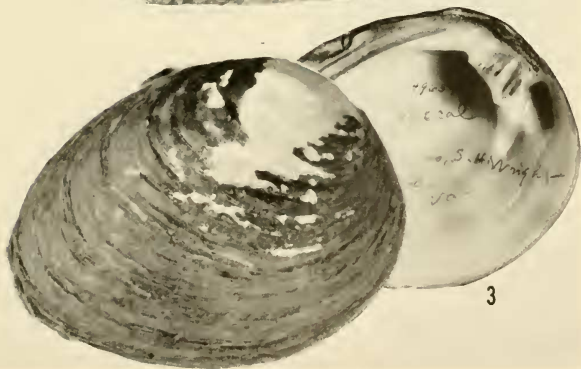
- Fig. 1. *Unio gibbosus armathwaitensis* B. H. Wright. A branch of the South Fork of the Cumberland River, Armathwaite, Fentress Co., Tennessee. Lectotype USNM 150523. Length 87 mm., height 45 mm., width 24 mm.
- Fig. 2. *Unio cylindricus strigillatus* B. H. Wright. Clinch [Powell] River [Jonesville], Lee Co., Virginia. Lectotype USNM 151737. Length 60 mm., height 34 mm., width 21 mm.
- Fig. 3. *Unio swordianus* S. Hart Wright. Powell Creek [River], Lee Co., Virginia. Lectotype USNM 149654. Length 68 mm., height 50 mm., width 26 mm.



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Plate 3

Plate 4

- Fig. 1. *Unio strodeanus* B. H. Wright. Escambia River, West Florida. Lectotype USNM 150498. Length 37 mm., height 27 mm., width 17 mm.
- Fig. 2. *Unio iheringi* B. H. Wright. San Saba River, Menard Co., Texas. Holotype USNM 152171. Length 52 mm., height 34 mm., width 20 mm.
- Fig. 3. *Unio harperi* B. H. Wright. [Spring Creek, a branch of the Flint River, Decatur Co., Georgia.] Holotype USNM 159197. Length 48 mm., height 30 mm., width 21 mm.
- Fig. 4. *Unio rotulatus* B. H. Wright. Escambia River, Escambia Co., Florida. Holotype USNM 159969. Length 48 mm., height 45 mm., width 32 mm.
- Fig. 5. *Unio reclusus* B. H. Wright. Ocklocknee [Ochlockonee] River, Leon Co., Florida. Holotype USNM 151029. Length 40 mm., height 26 mm., width 18 mm.
- Fig. 6. *Margaritana marginata truncata* B. H. Wright. [Clinch River, Virginia.] Lectotype USNM 150545. Length 56 mm., height 31 mm., width 24 mm.



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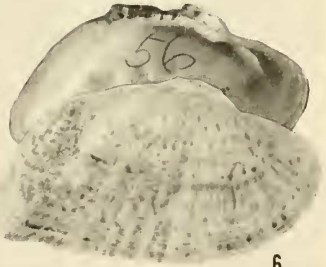
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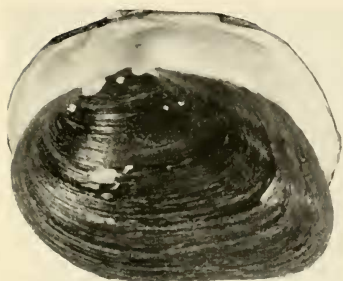


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Plate 4

Plate 5

- Fig. 1. *Unio brimleyi* S. Hart Wright. [Walnut Creek] Raleigh [Wake Co.] North Carolina. Lectotype USNM 149651. Length 58 mm., height 37 mm., width 22 mm.
- Fig. 2. *Unio pinkstonii* S. Hart Wright. Tuscaloosa [Tallapoosa] River, Macon Co., Alabama. Lectotype USNM 149649. Length 46 mm., height 27 mm., width 25 mm.
- Fig. 3. *Unio kirklandianus* S. Hart Wright. Ocklocknee [Ochlockonee] River, Leon Co., Florida. Holotype USNM 149648. Length 48 mm., height 29 mm., width 19 mm.
- Fig. 4. *Unio friersoni* B. H. Wright. Bayou Pierre, an arm of the Red River, De Soto Parish, Louisiana. Lectotype USNM 133432. Length 42 mm., height 38 mm., width 26 mm.
- Fig. 5. *Unio walkeri* B. H. Wright. Suwannee River [Ellaville], Madison Co., Florida. Lectotype USNM 150506. Length 47 mm., height 25 mm., width 17 mm.
- Fig. 6. *Unio kingii* B. H. Wright. A branch of the Flint River, Baker Co., Georgia. Holotype USNM 159965. Length 37 mm., height 20 mm., width 15 mm.
- Fig. 7. *Unio singularis* B. H. Wright. Spring Creek [a branch of the Flint River], Decatur Co., Georgia. Holotype USNM 159988. Length 67 mm., height 33 mm., width 23 mm.



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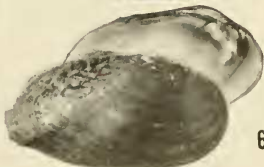
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Plate 5

Plate 6

- Fig. 1. *Unio danielsii* B. H. Wright. Spring Creek [a branch of the Flint River], Decatur Co., Georgia. Holotype USNM 168967. Length 52 mm., height 36 mm., width 25 mm.
- Fig. 2. *Unio polymorphus* B. H. Wright. Spanish Creek [a tributary of St. Marys River, W of Folkston], Charlton Co., Georgia. Lectotype USNM 152060. Length 75 mm., height 46 mm., width 29 mm.
- Fig. 3. *Unio lehmanii* S. Hart Wright. St. Marys River [Nassau Co.], Florida. Lectotype USNM 149650. Length 60 mm., height 40 mm., width 24 mm.

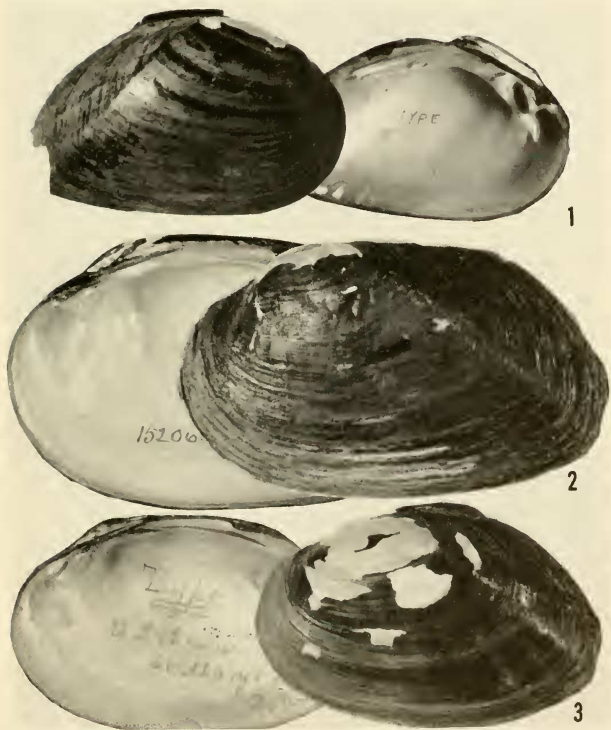


Plate 6

Plate 7

- Fig. 1. *Unio hartwrightii* B. H. Wright. [St. Johns River], Blue Springs [3 mi. S of Lake Beresford, Volusia Co.], Florida. Holotype USNM 151031. Length 78 mm., height 47 mm., width 31 mm.
- Fig. 2. *Unio websterii* B. H. Wright. Lake Woodruff, Volusia Co., Florida. Lectotype USNM 125697. Length 96 mm., height 57 mm., width 33 mm.
- Fig. 3. *Unio unicostatus* B. H. Wright. Spring Creek [a branch of the Flint River], Decatur Co., Georgia. Lectotype USNM 159966. Length 38 mm., height 26 mm., width 15 mm.
- Fig. 4. *Unio averellii* B. H. Wright. Lake Ashby, Volusia Co., Florida. Lectotype USNM 91142. Length 48 mm., height 30 mm., width 18 mm.

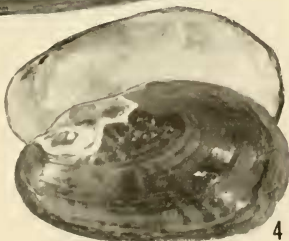


Plate 7

Plate 8

- Fig. 1. *Unio villosus* B. H. Wright. Suwannee River [Luraville], Suwannee Co., Florida. Lectotype USNM 150503. Length 57 mm., height 28 mm., width 18 mm.
- Fig. 2. *Unio simpsoni* B. H. Wright. Lake Woodruff, Volusia Co., Florida. Holotype USNM 151038. Length 59 mm., height 31 mm., width 16 mm.
- Fig. 3. *Unio dispalans* B. H. Wright. Suwannee River, Florida. Holotype USNM 159986. Length 62 mm., height 32 mm., width 17 mm.
- Fig. 4. *Unio burtchianus* S. Hart Wright. St. Marys River, Nassau Co., Florida. Lectotype USNM 149653. Length 52 mm., height 29 mm., width 18 mm.
- Fig. 5. *Unio fryanus* B. H. Wright. Lake Ashby, Volusia Co., Florida. Holotype USNM 151032. Length 44 mm., height 25 mm., width 16 mm.
- Fig. 6. *Unio diazensis* S. Hart Wright. Lake Diaz, Volusia Co., Florida. Lectotype USNM 149652. Length 34 mm., height 20 mm., width 13 mm.

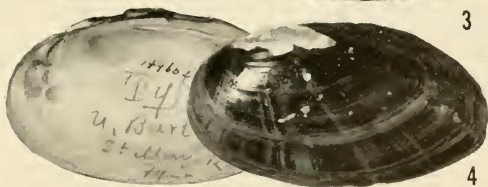
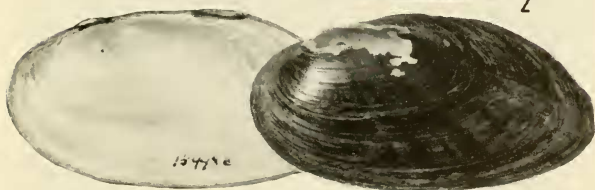
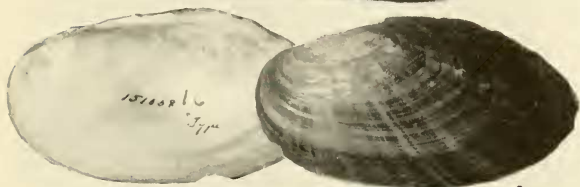


Plate 8

Plate 9

- Fig. 1. *Unio orcuttii* S. Hart Wright. [Horse Creek] near Manatee River [Manatee Co.], Florida. Holotype USNM 308971. Length 58 mm., height 34 mm., width 25 mm.
- Fig. 2. *Unio dorei* B. H. Wright. Lake Monroe [Volusia Co.], Florida. Holotype USNM 151034. Length 65 mm., height 40 mm., width 31 mm.
- Fig. 3. *Unio (Elliptio) sanctorumjohanium* B. H. Wright. Lake Druid, near Floral City [Citrus Co.], Florida. Holotype USNM 424738. Length 65 mm., height 49 mm., width 25 mm.
- Fig. 4. *Unio (Elliptio) webbianus* B. H. Wright. Lake Consuelo [or Little Lake, SE of] Floral City, Citrus Co., Florida. Holotype USNM 424923. Length 53 mm., height 30 mm., width 19 mm.
- Fig. 5. *Unio (Elliptio) webbianus hartii* B. H. Wright. Lake Consuelo [or Little Lake, SE of] Floral City, Citrus Co., Florida. Holotype USNM 424925. Length 34 mm., height 19 mm., width 11 mm.



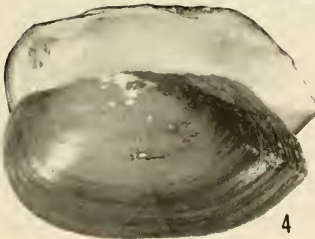
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Plate 9

Plate 10

- Fig. 1. *Unio cunninghami* B. H. Wright. [Lake Harris, Yalaha, Lake Co.], Florida. Paralectotype USNM 152063. Length 57 mm., height 28 mm., width 29 mm.
- Fig. 2. *Unio dalli* B. H. Wright. Lake Beresford, Volusia Co., Florida. Holotype USNM 151037. Length 63 mm., height 35 mm., width 21 mm.
- Fig. 3. *Elliptio maywebbae* B. H. Wright. Near Seminole Springs [is Rock Springs, Orange Co.], 15 mi. SE of Eustis [Lake Co.], Florida. Holotype USNM 425354. Length 52 mm., height 30 mm., width 23 mm.
- Fig. 4. *Unio nolani* B. H. Wright. A creek flowing into St. Johns River, near Palatka [Putnam Co.], Florida. Holotype USNM 151030. Length 71 mm., height 36 mm., width 22 mm.
- Fig. 5. *Unio pinei* B. H. Wright. Unnamed lake in the Witthacoochee [Withlacoochee] River region of Hernando Co., Florida. Holotype USNM 150127. Length 74 mm., height 34 mm., width 22 mm.

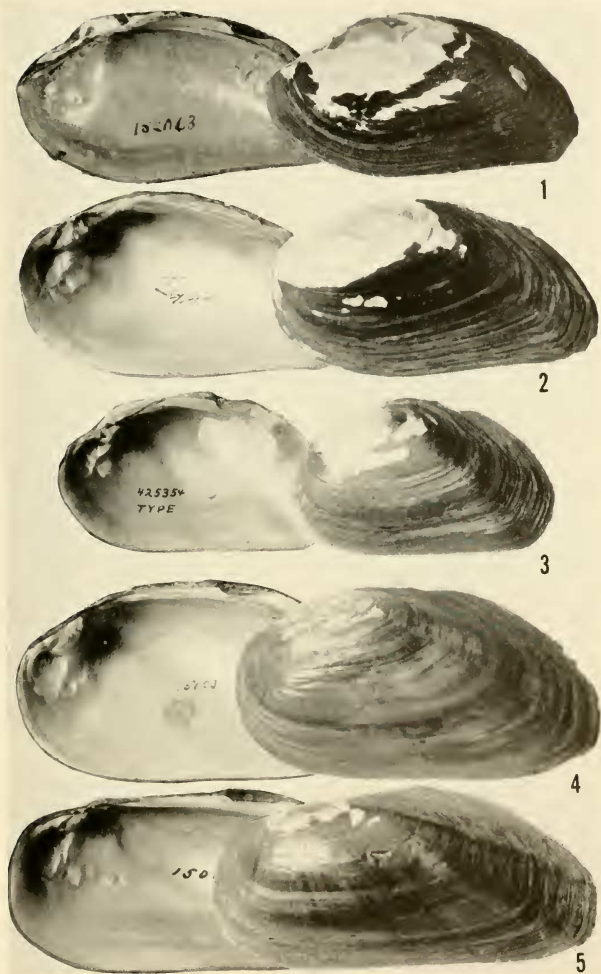


Plate 10

Plate 11

- Fig. 1. *Unio hinkleyi* B. H. Wright. Lake Monroe [Volusia Co.], Florida. Holotype USNM 151033. Length 73 mm., height 38 mm., width 25 mm.
- Fig. 2. *Unio suttoni* B. H. Wright. [Smith] Lake near Candler, Marion Co., Florida. Holotype USNM 150129. Length 59 mm., height 23 mm., width 21 mm.
- Fig. 3. *Unio oscar*i B. H. Wright. A creek from Lake Osceola, Winter Park [Orange Co.], Florida. Lectotype USNM 123526. Length 59 mm., height 26 mm., width 23 mm.
- Fig. 4. *Unio buxtoni* B. H. Wright. Lakelets of Marion Co., Florida. Lectotype USNM 150131. Length 46 mm., height 20 mm., width 15 mm.
- Fig. 5. *Unio waltoni* B. H. Wright. Lake Woodruff, Volusia Co., Florida. Lectotype USNM 91145. Length 78 mm., height 28 mm., width 16 mm.

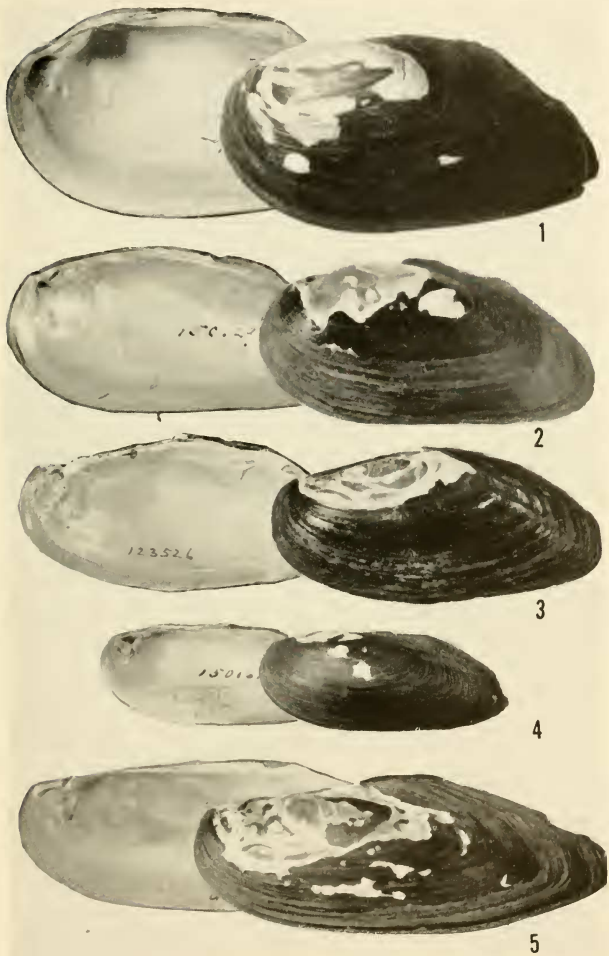


Plate 11

Plate 12

- Fig. 1. *Unio tryoni* B. H. Wright. Lake Woodruff [Spring Garden Lake] near De Leon Springs, Volusia Co., Florida. Holotype USNM 151036. Length 98 mm., height 45 mm., width 32 mm.
- Fig. 2. *Unio marshii* B. H. Wright. [St. Johns River] Blue Springs [3 mi. S of Lake Beresford, Volusia Co., Florida]. Holotype USNM 151028. Length 90 mm., height 47 mm., width 33 mm.
- Fig. 3A. *Bulimulus dormani albida* B. H. Wright. [Near Lake Helen, Volusia Co., Florida.] Figure after Pilsbry of topotype in ANSP. Length 32 mm., width 14.7 mm., aperture 15.5 mm.
- Fig. 3B, C. *Bulimulus dormani albida* B. H. Wright. [Near Lake Helen, Volusia Co., Florida.] Figure after Pilsbry with the note, "The tint is pale brownish." Length 20 mm., width 10 mm., aperture 10.4 mm.
- Fig. 4. *Bulimulus hemphilli* B. H. Wright. [Hawks Park] the tongue of land between the ocean and Halifax (or Indian) River [Volusia Co.], Florida. Lectotype MCZ 13020. Height 12 mm., width 8 mm. (3×).

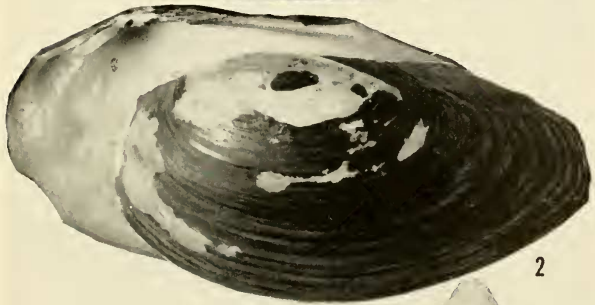
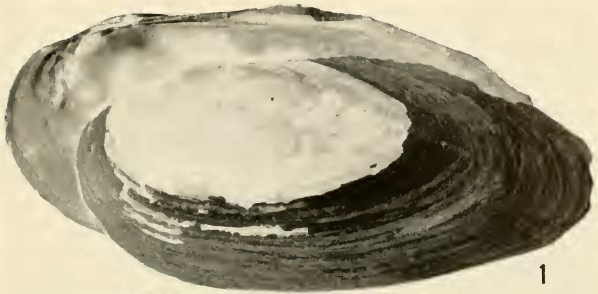
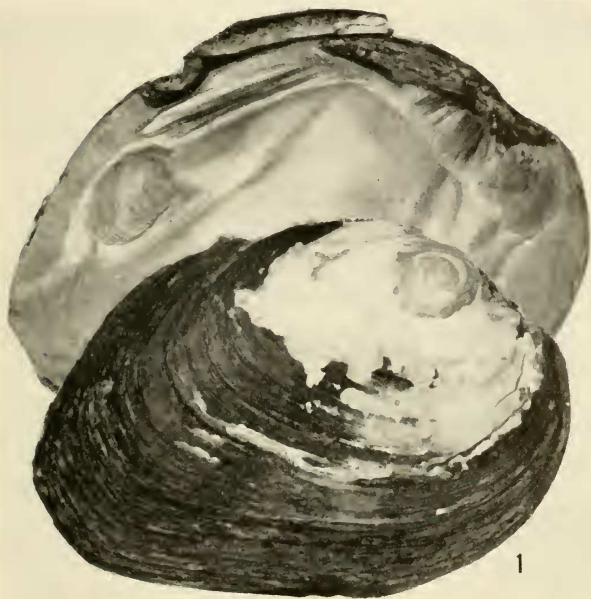


Plate 12

Plate 13

- Fig. 1. *Unio bursa-pastoris* B. H. Wright. Powell River [Lee Co.], Virginia. Holotype ANSP 67971. Length 91 mm., height 61 mm., width 35 mm.
- Fig. 2. *Unio cunninghami* B. H. Wright. [Lake Harris, Yalaha, Lake Co.] Florida. Lectotype ANSP 41348a. Length 48 mm., height 29 mm., width 24 mm.



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Plate 13